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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,648	09/04/2003	Akio Okamiya	P/4169-7	8323
2352	7590	06/23/2005	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			ZACHARIA, RAMSEY E	
			ART UNIT	PAPER NUMBER
			1773	
DATE MAILED: 06/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,648

Applicant(s)

OKAMIYA ET AL.

Examiner

Ramsey Zacharia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/27/04, 4/11/05, and 4/15/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/27/04; 4/15/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

2. Applicant's election of Group I in the reply filed on 11 April 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. Claims 8-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11 April 2005.

Claim Rejections - 35 USC § 112

4. Claims 1-7 and 37-40 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a fluid repelling agent comprising a solvent in addition to the UV coloring agent and fluorine-based polymer, does not reasonably provide enablement for a fluid repelling agent that does not comprise a solvent. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. It appears from the instant specification (page 9, paragraph 0038) that the reduction of outgas is, at least in part, a result of the baking

process for removing the solvent. Therefore, the presence of the solvent appears critical to the practice of the invention.

Claim Rejections - 35 USC § 102 / 103

5. Claims 23-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miura et al. (JP 2001-27242).

Miura et al. teach a dynamic pressure bearing device that may be used in a hard disc drive (paragraph 0003). An oil-repellent agent is applied to parts of the bearing device such as shafts and sleeves (paragraph 0004). The oil-repellent agent comprises a fluorinated resin (corresponding to the instant fluorine-based polymer) in a solvent (paragraph 0026). A fluorescent agent (corresponding to the instant UV coloring agent), such as a member of the coumarin system, is added to the oil-repellent composition, thereby making it possible for the parts coated with the oil-repellent agent to be visually recognized immediately.

Miura et al. do not teach the concentration of the fluorescent agent or fluorinated resin in the oil-repellent agent composition. However, these concentrations are drawn to the oil repelling agent while the claims are directed to bearing components. The oil repelling agent is not present in the articles of claims 23-36 because the oil repelling agent comprises a solvent and the solvent is removed to form the oil repelling film (see for example page 8, paragraph 35 and page 9 paragraph 37). The limitation that the oil repelling film is formed from the recited oil repelling agent is a product-by-process type of limitation (in that it specifies the material used in the process by which the oil repelling film is formed) and as such a rejection under 35 U.S.C. 102/103 is appropriate (see MPEP 2113). However, the concentration of UV agent and fluorine-

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based polymer in the resulting bearing device cannot be determined simply from the concentrations in the coating composition since the claims do not specify an amount of coating applied or other possible constituents in the coating composition. Moreover, the concentration of a component in a solution is unrelated to the concentration of the component in a coating formed from the solution. For example, consider three coatings:

coating composition A having 0.5% colorant, 4.5% binder, and 95% solvent,

coating composition B having 1% colorant, 9% binder, and 90% solvent, and

coating composition C having 5% colorant, 45% binder, and 50% solvent.

In each case, the resulting coating will be 10% colorant and 90% binder because the solvent is removed to form the coating. That is, the same coating may be derived from compositions having very different concentrations of colorant and binder. Alternatively, consider three coatings:

coating composition D having 1% colorant, 4% binder, and 95% solvent,

coating composition E having 1% colorant, 9% binder, and 90% solvent, and

coating composition F having 1% colorant, 19% binder, and 80% solvent.

The coatings resulting from compositions D, E, and F would have colorant concentrations of 25%, 10%, and 5%, respectively, demonstrating that coatings having different concentrations of colorant may be derived from compositions containing the same concentration of colorant.

Therefore, the limitation in claims 23 and 30 specifying the concentration of UV coloring agent in the solvent containing oil repelling agent does not limit the concentration of UV coloring agent in the coating. As such the bearing of Miura et al. reads on the invention of instant claims 23-36 since it appears to be the same as the instant bearing of Miura et al.

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comprises a sufficient fluorinated polymer to repel oil and sufficient coumarin coloring agent to allow visual identification of the coating.

Claim Rejections - 35 USC § 103

6. Claims 1, 2, 5-7, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al. (JP 2001-27242).

Miura et al. teach a dynamic pressure bearing device that may be used in a hard disc drive (paragraph 0003). An oil-repellent agent is applied to parts of the bearing device such as shafts and sleeves (paragraph 0004). The oil-repellent agent comprises a fluorinated resin (corresponding to the instant fluorine-based polymer) in a solvent (paragraph 0026). A fluorescent agent (corresponding to the instant UV coloring agent), such as a member of the coumarin system, is added to the oil-repellent composition, thereby making it possible for the parts coated with the oil-repellent agent to be visually recognized immediately. Miura et al. also teach that an organic pigment, such as an anthraquinone dye, may be added to the oil-repellent composition (paragraph 0027).

Miura et al. do not teach the concentration of the fluorescent agent in the oil-repellent agent composition. However, Miura et al. do teach that the coloring agent is added to allow for visual recognition of the coating. The amount of coloring agent directly affects the degree of coloration of the product to be colored. That is, the amount of coloring agent is a results effective variable. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of fluorescent agent in the coating composition of Miura et al., since it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claims 1-7, 21-24, 27, 28, 30, 31, 34, 35, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokouchi et al. (U.S. Patent 6,582,130) in view of Miura et al. (JP 2001-27242).

Yokouchi et al. is directed to a bearing device (column 1, lines 6-10). The device comprises a rust preventive film made of an oil-repellent material (column 5, lines 23-26). The rust preventive layer is formed by applying a rust preventive solution comprising as little as 0.5 wt% of a fluorine-based rust preventive dissolved in a diluent (column 5, lines 38-42). The fluorine-based rust preventive material is a fluorine substituted polymer (column 7, lines 8-25).

Yokouchi et al. do not teach the addition of a UV coloring agent or organic pigment to the rust preventive film.

Miura et al. is directed to fluorinated coatings applied to bearing devices. Miura et al. teach the incorporation of an organic dye or fluorescent agent, such as a compound of the coumarin system, into the coating to allow for immediate visual recognition of coated parts (paragraph 0027).

One skilled in the art would be motivated to add such a fluorescent agent to the rust preventive coating of Yokouchi et al. to provide a means for determining if a part has been coated. Moreover, since the amount of coloring agent directly affects the degree of coloration of the product to be colored, the amount of coloring agent is a results effective variable. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to optimize the amount of fluorescent agent in the coating composition of Miura et al., since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 6 and 7, Miura et al. disclose the use of an organic coloring agent or a fluorescent agent with their coating for the same purpose, allowing for visual identification of the coating. It would be within the ability of one skilled in the art to use both a coloring agent and a fluorescent agent for applications in which multiple identifying means are desired.

Response to Arguments

8. Applicant's arguments filed 11 April 2005 have been fully considered but they are not persuasive.

With respect to claims 23-30, the applicants argue that Miura et al. do not teach or disclose using a solution with the recited concentration of UV coloring agent to form a film on the bearing.

This is not persuasive for the following reasons. The concentrations of UV coloring agent recited in claims 23 and 30 is the concentration in the solvent containing oil repelling agent and not the concentration in the oil repelling film. As discussed above, there is no correlation between the concentration of a component in solution and the concentration of that same component in a film formed by drying the solution.

With respect to the rejections under 35 U.S.C. 103, the applicants argue that the concentration range of the UV coloring agent as claimed was not optimized for the purpose of visual recognition but to reduce outgas generation.


This is not persuasive because visual inspection is explicitly cited in the instant application as a criterion for establishing the amount of UV coloring agent in the oil repelling agent (see page 10, paragraph 0041).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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